



ON SOME POINTS

IN THE

MEDICAL HISTORY OF THE CLERGY MUTUAL ASSURANCE SOCIETY.

By W. H. STONE, F.R.C.P.,

AND

STEWART HELDER,
FELLOW OF THE INSTITUTE OF ACTUARIES.

THE late Secretary and founder of this flourishing Society, not long before his death, had consented to our expressed wish that we should conjointly draw attention to some statistical and medical points of its early history. As the task, commenced some time ago, had been delayed by press of urgent business, his consent has since been more formally confirmed by the present Committee of Management.

The reason and object of such an association between the Actuary and Physician to the Society will be obvious to any one who looks over mortality tables as collected by several of the older and larger offices; whereas some are too strictly and exclusively medical, others, the majority, are purely collections of figures collated with numerical accuracy, and though well adapted for actuarial purposes, convey little or no professional information to the medical officers of similar corporations. To be generally useful such papers as the present should partake almost equally of the statistical and of what may be termed the

ultra-statistical element. The meaning of the former phrase is clear; by the latter we wish to denote those farther and less mathematical deductions which can be drawn in abundance, and with perfect legitimacy, from any large collection of deaths, especially when, as here, they are supplemented by details of family history and other accurate medical and actuarial information.

It was from the first obvious to both of us that the mere record of deaths and causes of deaths for each year, or for any stated period of years, would be worthless, if not misleading, unless closely collated with the number of insured members at each such period. This necessarily involves a work of great labour, which we hope in time to accomplish. But for the present we propose to give a general preliminary sketch of prominent points in the early history and mortality of the Society, reserving for a later communication the details above referred to.

The Clergy Mutual Assurance Society was established in the year 1829, under the Friendly Societies Acts, for the purpose "of raising a stock or fund, by means of the joint contributions of its members, for the mutual relief of each other, their wives, children, relations, or nominees, in sickness, infancy, advanced age, widowhood, and other natural states and contingencies, the occurrence of which may be calculated by way of average, and for the lawful assurance of money to be paid on the death of members." Thus, it will be seen that the object of the founder, the Rev. John Hodgson, was not to introduce any new plan of life assurance, but to apply the then existing systems to a society with which the clergy were invited to associate themselves, the assumption being that the mortality which would be found to prevail amongst them as a body would be far more favorable than that which had been previously found to prevail amongst the general community. Experience has proved this assumption to be correct; but had it been otherwise it would in no way have affected the stability of the society, as the premiums for assurances upon life were based upon the well-known Carlisle Table, with a percentage added for expenses of management, so that, as long as the rate of mortality among the clergy did not exceed that of the Carlisle Table, whilst there would be no profit from this source, there, at the same time, could be no loss.

It should, however, be observed that the business of the office

is not limited exclusively to clergymen; their near relations, male and female, and also their wives and the near relations of their wives being eligible. But the number of females and laymen thus admitted is proportionally small, and hardly sufficient to justify separate tabulation. In each case the deaths are not much above 50 on a total of over 1000.

It is not the intention of this paper to notice the sickness, the annuity, and the endowment branches, which also form a very small percentage¹ of the Society's transactions. Some of these we may probably consider on a future occasion; but we propose to give, in the first instance, a brief history of the earlier life policies.

When the Society was first established it was judged expedient not to make it liable for any claims to arise from death until they had the necessary protecting chances in their favour, which were considered amongst any number of mutual assurers to be not less than ninety persons. But as it was thought that application for assurances would be made the more readily and numerously when business was fully commenced by the admission of assured members, the following resolution was passed in October, 1829:

“Resolved—That the persons who have proposed to make assurances D² be admitted assurers of such assurances respectively upon exhibiting the requisite certificate of health and signing the proper declaration, provided such persons so to be admitted consent to waive any claim or title to any benefit which may arise from their assurances until ninety persons shall have been admitted for assurances of the same kind. And in the case of assurers being admitted subject to the above provision, their first premium shall be immediately paid. And should any assurer die, and the claim upon his or her assurance be void in consequence of the provision as above, then shall the premium which shall have been paid upon his or her assurance be returned, with interest thereupon at the rate of 5 per cent. per annum.”

The consequence of this resolution was that, although the Society was established in 1829, the first policy was not signed

¹ Barely $4\frac{1}{2}$ per cent.

² The symbol D is used to denote policies for the whole of life.

until March, 1830. The required number of members was, however, soon obtained, and policies were issued for the respective amounts assured before a death occurred, thereby rendering a return of any of the premiums paid, with interest thereon, unnecessary. But an additional security was offered to the members by the formation of a guarantee fund, consisting of various sums subscribed by the clergy and other well-wishers of the Society. This fund, amounting altogether to £5182 18s. 4d., is still held in reserve, as it has never been required, the capital derived from premiums having been found since the commencement of the Society more than sufficient for the payment of all claims.

Of the first 90 life policies issued by the Society¹—

65 have become claims;

6 have been purchased;

5 „ „ forfeited by non-payment of premium; and

14 are in existence at the present time.

It is worthy of remark that out of these 90 policies 3 deaths only occurred in the first 10 years, when by the Carlisle Table 11 might have been expected; and 11 deaths in the next succeeding 10 years, when by the same Table 12 might have been expected, making in all 14 deaths in the first 20 years against an expectation in the same period of 23. It is also worthy of notice that out of the 65 deaths 10 took place over the age of 80, 26 over the age of 70, and 45 over that of 60. Altogether the average age at entry of the 65 policies which have become claims was $38\frac{1}{2}$, and the average age at death 66, making the average duration of each policy $27\frac{1}{2}$ years. The total amounts originally assured were £38,800, and the annual premiums payable thereon £1211 16s. 11d. On 36 of the policies assuring £18,950, at annual premiums of £611 10s. 2d., the premiums had been wholly reduced by bonus and additions amounting to £5657 made to the sums assured; and on the remaining 30 policies, assuring £19,850, the original annual premiums of £600 6s. 9d. payable thereon had been reduced by bonus to £294 3s. 11d. per annum.

The average duration of the surrendered policies was 8 years, and of the forfeited policies nearly 2 years.

¹ *Wide Tables*, pp. 147—149.

The average age at entry of the 14 policies still in existence was $33\frac{1}{2}$, and the average present age 76, making the average duration of each policy $42\frac{1}{2}$ years. The total amounts originally assured were £8300, and the annual premiums payable thereon, viz. £219 9s. 8d., have been altogether extinguished by bonus, and additions amounting to £4542, have been made to the sums assured, equal to nearly 55 per cent. of the original amount of the policies.

It is well known that the sources from which a life assurance company derives its profits are—

(1) A higher rate of interest obtained on the invested funds than that used in calculating the premiums.

(2) The difference between the amount added to the premiums for expenses of management, technically termed “loading,” and the sum actually required to meet those expenses.

(3) A more favorable rate of mortality prevailing amongst the members than that exhibited in the table upon which the premiums are based.

Thus, it will be seen that two companies may be in exactly the same position with regard to profits made under heads 1 and 2, and yet be widely different with regard to profits made under head 3. Now, there is no doubt that under this latter head a large proportion of the profits returned to the members of the “Clergy Mutual” by way of bonus has been derived. But lest it might be thought desirable to adopt a lower rate of premiums, owing to this very favorable “mortality experience,” a few remarks are here offered. It must be borne in mind that the contracts of a Life Assurance Company are not expected to terminate to-day or to-morrow, but are spread, on an average, over a long series of years. Hence a wise precaution was used by the founder in taking as the basis of the Society’s transactions a table of mortality which exhibited a rate that in all probability would never be exceeded by the members. It has already been shown that out of 90 lives assured more than forty years ago 14 are still alive, and it is hardly necessary to point out that of the 6000 policies now in existence a great many years will have passed away before they will have all fallen in, nor is it possible to say now what may happen at any time greatly to affect lives in their passage through so long a period. The same favorable rate of mortality may still continue to obtain

amongst the clergy, and most probably will; but assurance would not be what its name implies it to be were it not made amply secure by its annual premiums;¹ the adoption of this course is the more to be commended, inasmuch as the interests of the members in no way suffer by it, for, belonging, as they do, to a mutual society, the *realised* profits from *every* source are divided amongst them every five years.

The annexed tables have for their object to follow out the first 90 policies to their termination, whether in death, surrender, forfeiture, or as existing at the present moment; and also to trace the deaths during the first twenty years of the Society's existence, with special reference to the certified cause of such death. A table is also subjoined to show by comparison the difference per cent. in the annual mortality between clergy and laity.

Annual Mortality per cent.

Ages.	Twenty offices' experience.	"Clergy Mutual" experience.	Hodgson's Clergy Tables, 18th century.	Hodgson's Clergy Tables, 19th century.	Carlisle Table.
24 to 29	0·73	0·61	0·47	0·42	0·82
30 to 34	0·85	0·31	0·64	0·63	1·01
35 to 39	0·97	0·53	0·70	0·61	1·09
40 to 44	1·09	0·49	0·85	0·72	1·41
45 to 49	1·36	0·73	1·03	0·83	1·44
50 to 54	1·72	1·18	1·70	1·33	1·52
55 to 59	2·35	1·72	2·21	1·65	2·20
60 to 64	3·38	2·22	3·25	2·90	3·68
65 to 69	4·90	3·80	4·60	4·39	4·45
70 to 74	7·23	3·38	7·52	6·80	6·97
75 to 79	10·92	6·70	11·62	10·72	10·54
80 to 84	15·44	21·54	17·00	16·77	13·86
85 to 89	22·50	...	23·32	23·40	19·92
90 to 94	20·65	...	33·80	30·18	28·61
95 to 99	25·00	11·76	22·92
100	100·00		

¹ The Society, for the convenience of those members who may wish to pay a small annual premium, will take four fifths of the tabular annual premium, and allow one fifth to remain as a debt upon the policy, to be paid wholly or in part out of bonus at each quinquennial division of profits.

Claims by Death.

Policy No.	Sum assured.	Additions after total extinction of premium.	AGE.		Original annual premium.	Premium payable at death.	Number of bonuses allotted.
			Entry.	Exit.			
	£	£	Year. Mo.	Year. Mo.	£ s. d.	£ s. d.	
1	500	395	45 8	84 10	18 1 8	...	7
2	1000	...	45 11	56 5	37 8 4	33 1 6	1
3	300	...	47 0	65 11	11 12 6	4 7 11	3
5	500	...	37 4	66 6	14 2 6	0 9 5	5
6	100	94	41 1	83 3	3 4 0	...	8
7	500	...	51 2	69 7	22 16 8	5 4 1	3
8	1000	40	39 8	69 1	31 1 8	...	5
10	1000	202	30 11	72 2	23 15 0	...	7
12	500	327	43 6	83 10	17 0 0	...	7
13	1000	...	40 7	51 4	32 0 0	28 12 6	1
15	500	116	50 11	75 9	22 16 8	...	4
17	500	425	51 10	88 3	23 13 4	...	6
18	500	29	57 10	75 4	32 2 6	...	3
19	1000	316	39 11	57 2	31 1 8	...	3
20	1000	...	38 3	55 0	29 3 4	16 12 5	3
22	300	90	41 5	75 6	9 18 0	...	6
23	500	101	31 0	68 4	11 17 6	...	7
27	500	59	34 7	66 9	13 5 0	...	6
28	500	247	39 7	80 7	15 10 10	...	7
29	500	113	52 8	77 8	25 0 10	...	4
32	150	...	34 7	63 0	3 19 6	0 9 1	5
33	500	166	50 4	80 8	21 16 8	...	5
34	500	...	45 7	58 5	18 1 8	12 12 0	2
63	500	170	34 7	75 2	13 5 0	...	6
92	400	63	37 1	70 6	11 6 0	...	6
109	200	23	26 5	63 3	4 5 0	...	7
110	500	...	19 10	32 10	8 15 0	7 1 1	2
111	250	...	50 0	59 11	10 18 4	9 10 9	1
125	200	41	38 11	74 6	6 0 4	...	6
132	1000	534	33 3	75 6	25 15 0	...	8
143	200	67	35 11	76 7	5 9 4	...	7
149	200	51	41 11	75 6	6 12 0	...	6
154	100	9	35 1	69 8	2 13 0	...	6
157	1000	...	33 5	58 7	25 15 0	10 6 1	4
160	1000	...	56 10	71 2	61 1 8	31 6 4	2
173	500	312	49 9	83 6	21 16 8	...	6
189	500	...	37 5	58 11	14 11 8	4 16 7	4
198	1000	146	29 10	67 7	23 3 4	...	7
200	750	...	39 6	62 4	23 6 3	6 9 7	4
204	500	...	31 0	55 3	11 17 6	5 5 7	4
215	500	...	29 6	51 11	11 11 8	5 5 10	4
221	1000	118	44 3	71 3	36 3 4	...	5
222	200	14	33 9	67 2	5 3 0	...	6
253	1000	173	46 11	77 1	38 15 0	...	5
256	500	...	30 1	55 1	11 17 6	5 6 3	4
272	400	...	30 5	57 2	9 10 0	2 14 9	5
274	500	431	40 9	81 6	16 0 0	...	8
285	500	...	27 0	45 9	10 12 6	7 2 6	3
288	700	62	34 1	65 11	18 11 0	...	6
292	1000	269	34 9	73 1	26 10 0	...	7

On Some Points in the Medical History of the

Claims by Death (continued).

Policy No.	Sum assured.	Additions after total extinction of premium.	AGE.		Original annual premium.	Premium payable at death.	Number of bonuses allotted.
			Entry.	Exit.			
	£	£	Year. Mo.	Year. Mo.	£ s. d.	£ s. d.	
298	1000	...	28 2	60 5	22 10 0	0 9 9	6
302	1000	...	36 8	40 0	28 5 0	28 5 0	—
313	500	...	31 11	53 6	12 3 4	5 6 9	4
318	1000	...	29 5	30 5	23 3 4	23 3 4	—
319	100	101	42 11	83 3	3 8 0	...	8
321	300	...	30 0	56 5	6 19 0	2 3 11	5
335	1000	...	37 0	65 9	28 5 0	3 9 10	5
340	1000	240	33 8	72 9	25 15 0	...	7
343	700	...	52 11	69 0	35 1 2	8 12 11	3
356	500	21	33 1	66 4	12 17 6	...	6
357	1000	...	25 6	31 0	20 13 4	19 6 7	1
372	1000	...	29 8	52 1	23 3 4	11 9 6	4
388	50	...	32 0	63 2	1 4 4	...	6
392	200	92	41 7	80 7	6 12 0	...	7
396	1000	...	39 11	62 2	31 1 8	10 17 1	4
TOTALS.							
65	38800	5657	2498 0	4288 10	1211 16 11	309 18 11	—

Surrenders.

Policy No.	Sum assured.	Additions after total extinction of premium.	AGE.		Original annual premium.	Premium payable at date of exit.	Number of bonuses allotted.
			Entry.	Exit.			
	£	£	Year. Mo.	Year. Mo.	£ s. d.	£ s. d.	
25	500	...	26 6	28 3	10 12 6	10 12 6	—
31	300	...	34 8	46 7	7 19 0	5 19 10	2
141	1000	...	31 4	34 7	24 6 8	24 6 8	—
192	500	158	56 10	78 4	30 10 10	...	4
270	300	...	28 10	32 1	6 15 0	6 15 0	—
316	500	...	37 11	45 1	14 11 8	13 7 5	1
(6)	3100	158	216 1	264 11	94 15 8	61 1 5	—

Arrears.

Policy No.	Sum assured.	Additions after total extinction of premium.	AGE.		Original annual premium.	Premium payable at date of exit.	Number of bonuses allotted.
			Entry.	Exit.			
	£	£	Year. Mo.	Year. Mo.	£ s. d.	£ s. d.	
9	100	...	26 2	27 2	2 1 4	2 1 4	—
16	500	...	21 0	24 0	9 0 0	9 0 0	—
180	500	...	35 11	37 3	13 13 4	13 13 4	—
358	800	...	45 2	46 6	29 18 8	29 18 8	—
395	250	...	33 6	36 9	6 8 9	6 8 9	—
(5)	2150	...	161 9	171 8	61 2 1	61 2 1	—

Existing 30th November, 1872.

Policy No.	Sum assured.	Additions after total extinction of premium.	AGE.		Original annual premium.	Premium payable now.	Number of bonuses allotted.
			Entry.	At date.			
	£	£	Year. Mo.	Year. Mo.	£ s. d.	£ s. d.	
4	500	368	37 8	80 4	14 11 8	...	8
21	500	438	39 10	82 9	15 10 10	...	8
24	200	98	32 11	75 10	5 0 0	...	8
26	600	159	25 8	68 8	12 8 0	...	8
30	500	313	36 0	79 0	13 13 4	...	8
108	1000	737	37 2	79 8	29 3 4	...	8
142	1000	220	23 11	66 5	19 10 0	...	8
195	1000	727	38 8	81 0	30 1 8	...	8
264	500	220	32 3	74 3	12 10 0	...	8
291	1000	568	35 2	77 0	27 6 8	...	8
330	800	382	33 9	75 4	20 12 0	...	8
331	100	77	39 11	81 6	3 2 2	...	8
362	100	21	26 8	68 0	2 2 6	...	8
364	500	214	33 1	74 3	12 17 6	...	8
(14)	8300	4542	472 8	1064 0	218 9 8	Nil.	

Summary.

	Number of policies.	Sum assured.	Additions after total extinction of premium.	Original annual premium.	Premium payable as reduced by bonus.	Average age at entry.	Average age at exit or at date.	Average duration.
		£	£	£ s. d.	£ s. d.	Years.	Years.	Years.
Claims by death	65	38800	5657	1211 16 11	309 18 11	38½	66	27½
Surrenders .	6	3100	158	94 15 8	61 1 5	36	44	8
Arrears .	5	2150	...	61 2 1	61 2 1	32	34	2
Existing 30th Nov., 1872 .	14	8300	4542	218 9 8	Nil.	33½	76	42½
	90	42350	10357	1586 4 4	432 2 5	—	—	—

TABLE 11.—Deaths in first Twenty Years of Society's existence.

No.	Amt.	Date.	Died.	AGE.		Duration.	DEATHS. Cause of death.	REMARKS.
				Entrance.	Exit.			
318	£ 1000	1832-3. Day. Mo. Yr. Day. Mo. Yr. 25, 3, '31 18, 3, '32		Yr. Mo. 29 5	Yr. Mo. 30 5	Yr. Mo. 1 0	Consumption	Female.
302	1000	1834-5. 11, 2, '31 22, 6, '34		36 8	40 0	3 4	Consumption	
424	1000	1835-6. 27, 1, '32 11, 2, '36		42 10	46 11	4 1	Thrown from gig and drowned	
357	1000	1837-8. 29, 7, '31 1, '37		25 6	31 0	5 6	Unknown	
508	500	1838-9. 4, 2, '33 8, '38		37 0	42 6	5 6	Unknown	
111 2 1460 13	250 1000 400 1000	1840-1. 23, 4, '30 28, 3, '40 12, 3, '30 29, 9, '40 28, 2, '40 1, 12, '40 12, 3, '30 29, 12, '40		50 0 45 11 45 0 40 7	59 11 56 5 45 10 51 4	9 11 10 6 0 10 10 9	Consumption Disease of heart Inflammation of bowels Typhus	Also No. 444, £100.

924	1500	29, 1, '38	6, '41	47	5	51	1	3	8	Hemiplegia Hemiplegia Hydrothorax "Induration of lungs"	Also No. 1289, £1000. Gout.
1288	1000	13, 9, '39	9, 12, '41	43	7	45	10	2	3		
783	600	24, 6, '36	2, 12, '41	24	7	30	1	5	6		
1782	200	13, 4, '41	18, 2, '42	47	11	48	9	0	10		
401	500	1842-3.		29	3	39	10	10	7	Phthisis Fever Fever Consumption Disease of uterus	Also Nos. 532, £500, and 920, £500. Referred to Dr. Babington for psoriasis. Female.
2095	500	4, 11, '31	1, 6, '42	42	9	42	10	0	1		
1885	500	10, 5, '42	26, 7, '42	39	0	39	7	0	7		
443	1000	28, 12, '41	7, '42	30	0	40	5	10	5		
1789	500	14, 3, '32	5, 8, '42	30	0	40	5	1	0	Consumption Apoplexy Phthisis Cynanche Hæmoptysis Effusion in chest	Also No. 571, £50. Also No. 1631, £300.
		27, 4, '41	18, 4, '42	49	11	50	11				
526	800	1843-4.		27	0	36	9	9	9		
34	500	31, 5, '33	2, '43	45	7	58	5	12	10		
110	500	18, 3, '30	5, 1, '43	19	10	32	10	13	0	Hepatic Phthisis Phthisis Cancer of rectum	Also Nos. 1892, £500, and 2845, £500. Also No. 2687, £1000.
2262	300	23, 4, '30	10, 4, '43	36	6	36	10	0	4		
578	600	3, 1, '43	24, 5, '43	38	9	48	8	9	11		
1260	500	28, 2, '34	1, 1, '44	41	2	45	7	4	5		
		9, 8, '39	12, 1, '44							Arachnoiditis Apoplexy Inflammation of stomach Inflammation of lungs Inflammation of bowels Disease of chest Consumption	
1006	100	1844-5.		27	9	32	9	5	0		
1374	1000	17, 9, '38	21, 9, '43	23	8	27	10	4	2		
1658	2000	27, 12, '39	16, 2, '44	37	3	40	8	3	5		
1156	2000	27, 11, '40	11, 4, '44	25	2	30	5	5	3	Arachnoiditis Apoplexy Inflammation of stomach Inflammation of lungs Inflammation of bowels Disease of chest Consumption	
160	1000	12, 4, '39	7, '44	56	10	71	2	14	4		
		30, 6, '30	9, 10, '44								
553	1000	1845-6.		34	9	46	1	11	4		
2158	600	29, 11, '33	1, 3, '45	30	7	33	10	3	3	Arachnoiditis Apoplexy Inflammation of stomach Inflammation of lungs Inflammation of bowels Disease of chest Consumption	
1018	1000	16, 8, '42	8, 11, '45	46	0	53	4	7	4		
1138	1000	17, 9, '38	21, 1, '46	40	11	47	9	6	10		
618	1000	15, 3, '39	1, '46	44	4	56	0	11	8		
2525	500	27, 6, '34	4, 2, '46	33	10	36	1	2	3	Arachnoiditis Apoplexy Inflammation of stomach Inflammation of lungs Inflammation of bowels Disease of chest Consumption	
2572	300	14, 11, '43	12, 2, '46	28	9	30	11	2	2		
		22, 12, '43	7, 2, '46								

TABLE II—continued.

No.	Amt.	Date.		Died.		Age.		Duration.	DEATHS. Cause of death.	REMARKS.
						Entrance.	Exit.			
	£	Dy. Mo. Yr.	Dy. Mo. Yr.	Dy. Mo. Yr.	Dy. Mo. Yr.	Yr. Mo.	Yr. Mo.	Yr. Mo.		
943	2500	30, 3, '38	1846-7.	2, '46	39 11	47 10	7 11	Consumption		
1522	500	15, 7, '40	18,	5, '46	57 2	63 0	5 10	Hepatic		Also Nos. 1665, £100, and 2088, £300.
2585	400	2, 1, '44	26,	6, '46	53 11	56 4	2 5	Remittent fever		
1958	500	28, 12, '41	25,	6, '46	50 10	55 4	4 6	Fever		
632	...	26, 9, '34	26,	7, '45	27 10	38 8	10 10	Femoral abscess		Surrender value paid, also No. 1073. Died at Kaab in Arabia without license.
434	500	24, 2, '32	19,	2, '47	37 11	52 11	15 0	Effusion in pericardium		
2568	400	14, 12, '43	1847-8.	1, '47	51 9	54 10	3 1	Suicide		Verdict, "Temporary insanity."
2309	2000	14, 2, '43	28,	4, '47	45 9	49 11	4 2	Inflammation of lungs		
343	700	27, 5, '31	10,	6, '47	52 11	69 0	16 1	Apoplexy		
19	1000	12, 3, '30	11,	6, '47	39 11	57 2	17 3	Apoplexy		Bonus £316.
18	500	12, 3, '30	3,	9, '47	57 10	75 4	17 6	Hydrothorax		Bonus £29; also No. 409, £500.
20	1000	18, 3, '30	19, 12, '46	38 3	35 3	55 0	16 9	Softening of brain		
2902	5000	25, 2, '45	17, 9, '47	35 3	37 10	2 7	2 7	Asthénie bronchitis		
2301	1000	31, 1, '43	16, 10, '47	33 11	38 8	4 9	4 9	Erysipelas		
1454	1000	28, 2, '40	24, 11, '47	28 6	36 3	7 9	7 9	Diabetes		Also No. 1922, £500.
2906	200	11, 3, '45	10, 12, '47	50 10	53 7	2 9	2 9	Apoplexy		Also No. 3164, £250.
2854	200	17, 12, '44	2, 11, '47	53 6	56 5	2 11	2 11	Hepatic		Also No. 3221, £400.
1656	1000	22, 12, '40	5, 2, '48	50 9	57 11	7 2	7 2	Sudden death		Jury assembled, but inquest not held.
3477	50	15, 6, '47	10, 12, '47	53 1	53 1	0 6	0 6	Apoplexy		
1280	1000	13, 9, '39	22, 12, '47	39 0	47 3	8 3	8 3	Scirrhus of intestines		

	1848-9.										Female.
	31, '31	2, '46	1, '48	31, '10	33, '8	1, '10	31, '46	2, '41	13, '48	31, '48	
3173	300	31, '31	1, '48	31, '10	33, '8	1, '10	31, '46	2, '41	13, '48	31, '48	Paralysis
1728	400	9, '41	6, '48	42, '9	50, '1	7, '4	42, '9	9, '41	6, '48	42, '9	Lumbar abscess
1693	1000	12, '41	7, '48	32, '11	40, '5	7, '6	32, '11	12, '41	7, '48	32, '11	Apoplexy
1425	1000	31, '40	6, '48	23, '11	32, '4	8, '5	23, '11	31, '40	6, '48	23, '11	Phthisis?
7	500	12, '30	8, '48	51, '2	69, '7	18, '5	51, '2	12, '30	8, '48	51, '2	Climacteric disease
1639	1000	39, '40	8, '48	33, '6	41, '4	7, '10	33, '6	39, '40	8, '48	33, '6	General paralysis
2119	1000	31, '42	9, '48	27, '11	34, '3	6, '4	27, '11	31, '42	9, '48	34, '3	Consumption
1191	200	21, '39	7, '48	28, '7	38, '1	9, '6	28, '7	21, '39	7, '48	38, '1	"Nervous delirium"
1804	500	25, '41	8, '48	32, '11	40, '2	7, '3	32, '11	25, '41	8, '48	40, '2	Drowned
544	1000	1, '11, '33	1, '49	33, '9	48, '11	15, '2	33, '9	1, '11, '33	1, '49	48, '11	Spinal
1943	400	7, '12, '41	8, '48	52, '0	59, '0	7, '0	52, '0	7, '12, '41	8, '48	59, '0	Cerebral
1263	1000	9, '39	30, '7, '48	34, '0	42, '11	8, '11	34, '0	9, '39	30, '7, '48	42, '11	Malignant disease of kidneys

NOTE.—The financial year of the Society ends on the 31st of May.

Summary of Table II.

Total deaths in 20 years, 68.	Males, 65.	Females, 3.
Deaths according to years, in	1832-3	1
	1833-4	0
	1834-5	1
	1835-6	1
	1836-7	0
	1837-8	1
	1838-9	1
	1839-40	0
	1840-1	4
	1841-2	4
	1842-3	5
	1843-4	6
	1844-5	5
	1845-6	7
	1846-7	6
	1847-8	14
	1848-9	12
Total		68

Causes of Death in order of frequency.

Phthisis 16	Erysipelas 1
Cerebral 15	Diabetes 1
Digestive system . . . 9	Climaeterie 1
Lung diseases, other than	Spinal 1
phthisis 7	Renal 1
Fevers 5	Uterine 1
Cardiac disease 2	Sudden death 1
Accident (drowning) . . 2	Unknown 2
Abscess 2	—
Suicide 1	68

This cannot be considered other than a favorable rate of mortality; especially does the remarkable scarcity of deaths in the early years bear evidence to the care employed in selecting the first lives, and also to the practicability, without elaborate papers of questions, of forming a generally correct estimate as to the value of individual proposals. The first ten years only give a result of one death in two years; and it is not until 1840 that the annual death rate mounts to the moderate figure of four. It remains within the decade until 1847, and the first twenty years only give an annual rate of between three and four deaths.

The medical questions at this date were singularly simple, five in number, asking respectively as to—1. Smallpox ; 2. Gout ; 3. “Asthma, fits, or any disorder which tends to shorten life ;” 4. “Violent inflammatory attacks, or spitting of blood.” 5. General good health. Some modern offices, which occupy four folio sheets with various medical queries and certificates, would probably stand aghast at this reticence. But it seems to have been more than sufficient for protection ; aided, doubtless, by a certain mutual intimacy of assurers and assured, and much also by the highly accurate and conscientious tone of the replies.

1. It is somewhat singular that in a constituency almost entirely male, the first death should have been that of a female. Indeed, for some cause which does not seem very obvious the proportion of female deaths during the early years was large. The cause of death is registered as consumption. The policy was begun in March, 1831, and death took place in same month of the following year. The assurer’s age at entrance was twenty-nine years five months, and at death thirty years five months.

On reference to later tables it will be found that this proposal was accepted in the most unfavorable portion of the female life, when its value is somewhat below that of a male life of the same age. According to the “Mortality experience of twenty offices” the female life at this age, twenty-five to twenty-nine, falls 49 below the corresponding male, although at later ages it is far superior.

2. The second death did not occur until July, 1834. The policy was taken out by a clergyman, aged thirty-six years eight months, and he died October, 1840, of consumption, having been three years four months a member of the society. Considering that the average duration of phthisis is from two to four years, there is good ground for the supposition that the disease may have originated subsequent to medical examination. At the same time it should also be noted that auscultation, our chief means of detecting early lung disease, was only made public about the time the society was started, and did not come into general use until later.

The third death occurred in February, 1836, being that of a clergyman, æt. forty-six years eleven months ; taken out in 1832, so that he had been four years one month in the society. He

was, according to the register, "thrown from his gig, and afterwards drowned." An inquest on the body returned a verdict of accidental death.

The two following cases are returned with cause of death unknown, probably in consequence of the still incomplete system of registering deaths existing at that time. The sixth death did not occur till 1840; it was owing to consumption occurring rather late in life, within a month of sixty years. As in this year a regular death rate seems to have begun, we need not pursue single cases any further.

The earliest deaths after completion of the assurance are as follows:—

Duration.		Age at death.		Cause of death.
Years	Mos.	Years	Mos.	
0	1	42	10	Fever.
0	4	36	10	Cynanche.
0	6	53	7	Apoplexy.
0	7	39	7	Fever.
0	10	45	10	Inflammation of bowels.
0	10	48	9	"Induration of lungs" (Phthisis).
1	0	50	11	Uterine.
1	0	30	5	Consumption.

The only diseases which occur twice are fever and phthisis; for under this heading no doubt the vague return of induration of the lungs should be classified.

On examining the diseases to which death was due, we find even more than the usual large predominance of phthisis, to which sixteen are attributed. If we add the number seven, due to other lung affections, the total of twenty-three represents a fraction more than one third of all the deaths.

The sixteen phthisical cases represent a total of 104 years eight months of life, which only gives an average duration of six and a half years to each life. The average of twenty-three cases is substantially the same. It is not uninteresting to extract these deaths from the general table, and place side by side the duration of the policy and the age at death.

Cases of phthisis.

Duration of policy.		Age at death.	
Years.	Mos.	Years.	Mos.
1	0	30	5
3	4	40	0
9	11	59	11
0	10	48	9
10	7	39	10
10	5	40	5
9	2	36	9
13	0	32	10
9	11	48	8
4	2	27	10
5	3	30	5
2	3	36	1
2	2	30	11
7	11	47	10
8	5	32	4
6	4	34	3

One only of these deaths occurred below thirty; nine between thirty and forty; five between forty and fifty; one, as above noted, at the end of the sixth decennial period.

The fifteen cerebral cases give a total of 120 years four months of life which furnishes an average of eight years for each life. It is probable that the number here tabulated is hardly sufficient to give a fair estimate, and that the whole mortality of the society for brain diseases will prove much more favorable. Certain forms, indeed, seem a natural termination of aged lives, and therefore figure more in the later statistics.

The deaths from diseases of the digestive system are too few for numerical analysis, and are chiefly remarkable as consisting of what may be termed adventitious disorders rather than any of the principal morbid processes in this department. There are three hepatic, two malignant cases and one of cynanche. Fevers give a total of five cases, one being remittent. Cardiac disease gives the remarkably low number of two, abscesses, accidents, and unknown causes of death being of similar amount. Other diseases appear singly or are entirely absent. With regard to this latter point it is worth notice that so common a complaint as bronchitis only appears once on the table, and that gout, hernia, and renal affections are absolutely unrepresented, the only renal case being distinctly reported as

malignant. There are no doubt good reasons why Bright's disease should not figure in the table during the earlier years ; but its absence farther on is worthy of comment, considering that in the ordinary average of hospital practice it does not rank far in frequency below phthisis and other chest affections.

Beyond this for the present we do not propose to go. The few remarks which we have felt justified in making tend not only to commemorate the early experience of an office now ranking among the older institutions of its kind, and second to none in prosperity ; but they will enable us in a future communication to assume, from the specimen here exhibited, that the facts on which we base our observations, though presenting a favorable average, are not entirely or in kind exceptional. Although the society still numbers among its ranks, after an existence of over forty-two years, a considerable body of its original assurers, and though the mortality for the first ten years was marvellously small, still there was a fair number of the usual mishaps which it is the special province of assurance to meet and provide for ; and there is clear evidence that the problem was boldly and honestly grappled with. The guarantee fund, still existing in name, which, in the early years of the Society's operations, was a very real protection, and practically equivalent to the paid up capital of a proprietary office,—except that no interest was payable upon it,—shows that no undue expectations of success were formed ; and the fact that it has never from first to last been approximately introduced or even thought of, is proof of careful painstaking selection of lives, and cautious investment of funds from the very commencement. It is a satisfaction to know that the founder and first secretary, himself one of the earliest assurers, holding policy No. 28, and one of the very best lives recorded in these tables, was able in his eighty-first year to behold the entire success of his early labours.